DATASHEET - DILER-31(48V50HZ)



Contactor relay, 48 V 50 Hz, N/O = Normally open: 3 N/O, N/C = Normally closed: 1 NC, Screw terminals, AC operation



Part no. Catalog No. Alternate Catalog No.

DILER-31(48V50HZ) 010044 atalog XTRM10A31Y

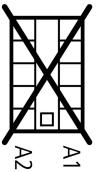
Similar to illustration

Delivery program

Product range			DILER Mini-contactors
Application			Contactor relays
Description			with interlocked opposing contacts
Connection technique			Screw terminals
Rated operational current			
Conventional free air thermal current, 1 pole			
Open			
at 50 °C	$I_{th} = I_e$	А	10
AC-15			
220 V 230 V 240 V	I _e	А	6
380 V 400 V 415 V	I _e	А	3
Contacts			
N/O = Normally open			3 N/O
N/C = Normally closed			1 NC
Contact sequence			$\begin{array}{c} A^{1} \\ A^{1} \\ A^{2} \\$
Code number and version of combination			
Distinctive number			31E
For use with			DILE
Actuating voltage			48 V 50 Hz
Voltage AC/DC			AC operation
Instructions			Contact numbers to EN 50011 Coil terminal markings to EN 50005

Technical data

General			
Standards			IEC/EN 60947, EN 60947-5-1, VDE 0660, UL, CSA
Lifespan, mechanical			
AC operated	Operations	x 10 ⁶	10
Maximum operating frequency	Operations/h		9000
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Open		°C	-25 - +50
Enclosed		°C	- 25 - 40
Mounting position			
Mounting position			As required, except vertical with terminals A1/A2 at the bottom



Methodia back visions (1900 1000 1000 1000 1000 1000 1000 100				A1 A2
Heli-machineImage: set of the state induction of the state inducti	Mechanical shock resistance (IEC/EN 60068-2-27)			
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AC generalIIITerminel capachesIIISolidIIIISolidIIIIRexbewitherwaleIIIIRexbewitherwaleIIIISolid ar attadedIIIISolid ar attaded worksIIIISolid ar attaded works	Weight			
Seried terminalsImage: Provide with ferruleImage: Provide with ferru	AC operated		kg	0.17
Sidi Robie with ferule	Terminal capacities		mm ²	
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Terminal screwMassPozidriv screwdriverSizeSize3Standard screwdriverSizeSize3Max tightening torqueNm33Max tightening torqueNm12ContractsNm13ContractsNmNmNmRated oposing contacts to ZH 1/457, including auxiliary contactmotedNmNmOwnorldage chagory/pollution degreeNmNmNmRated insuliary contactsVNMNmRated operational voltageVNMNmRated operational voltageVNMNmStep scheduring contactsVNMNmStep scheduring contactsNmNmNmStep scheduring contactsNm	Solid or stranded		AWG	1 x (18 - 14)
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Standard screwdriver Image: Marce Marc	Terminal screw			M3.5
i Net18Matightening torqueNm12ContactsMmSolutionInterlocked opposing contexts D2H 1/437, including auxiliany contextMmMoRetainupous winksand voltageMmVACMoOvervlage category/pollution degreeVACMoMoRetainupous contextsVACMoMoRetainupous contextsMoMoMoRetainupous contextsNoMoMoRetainupous contextsMoMoMoRetainupous contextsMoMoMoRetainupous contexts <td>Pozidriv screwdriver</td> <td></td> <td>Size</td> <td>2</td>	Pozidriv screwdriver		Size	2
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Safe islation to EN 61140 Image:	-			
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Rated operational current Amount				
Conventional free air thermal current, 1 pole Image: Conventional free air thermal current, 1 pole Open Image: Conventional free air thermal current, 1 pole a t 50 °C Image: Conventional free air thermal current, 1 pole AC-15 Image: Conventional free air thermal current, 1 pole 220 V 230 V 240 V Image: Conventional free air thermal current 380 V 400 V 415 V Image: Conventional free air thermal current S00 V Image: Conventional free air thermal current Notes Image: Conventional free air thermal current DC L/R ≤ 15 ms Image: Conventional free air thermal current Contacts in series: Conventional free air thermal current				
Open Interface Interface<				
at 50 °C htm = le Ac. Htm = le Ac. Ac. Independent of the second of the sec				
AC-15 Image: Constant series: Image: Const		I _{th} =I _e	A	10
380 V 400 V 415 V Ie A 380 V 400 V 415 V Ie A 500 V Ie A 500 V Ie A DC current Ie A Notes Ie A DC L/R ≦ 15 ms Ie A Contacts in series: Ie A	AC-15			
380 V 400 V 415 V Ie A 3 500 V Ie A 5 DC current Ie A 5 Notes Ie A A DC L/R ≤ 15 ms Ie A A Contacts in series: A A A	220 V 230 V 240 V	l _e	А	6
500 V Ie A 500 V Ie A DC current A A Notes A A DC L/R ≤ 15 ms A A Contacts in series: A A	380 V 400 V 415 V		А	3
DC current Image: Contacts in series: Imag	500 V		A	1.5
Notes Mode DC L/R ≦ 15 ms Mode Contacts in series: A				
DC L/R ≦ 15 ms Contacts in series: A				Switch-on and switch-off conditions based on DC-13, time constant as specified.
Contacts in series: A	DC L/R ≦ 15 ms			
1 24 V A 2.5			А	
	1	24 V	А	2.5

2	60 V	А	2.5
3	110 V	A	1.5
3	220 V	A	0.5
Control circuit reliability	Failure rate	λ	<10 ⁻⁸ , < one failure at 100 million operations (at U _e = 24 V DC, U _{min} = 17 V, I _{min} = 5.4 mA)
Short-circuit rating without welding			
Maximum overcurrent protective device			
220 V 230 V 240 V		PKZM0	4
380 V 400 V 415 V		PKZM0	4
Short-circuit protection maximum fuse			
500 V		A gG/gL	6
500 V		A fast	10
Current heat loss at I _{th}			
AC operated		W	1.1
Magnet systems			
Voltage tolerance			
AC operated			
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Pick-up	x U _c	0.8 - 1.1
Dual-frequency coil 50/60 Hz	Pick-up	x U _c	0.85 - 1.1
Power consumption			
AC operation			
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Pick-up	VA	25
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Sealing	VA	4.6
Single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz	Sealing	W	1.3
duty factor		% DF	100
Changeover time at 100 $\%~\text{U}_{S}$ (recommended value)			
AC operated closing delay		ms	14 - 21
AC operated N/O contact opening delay		ms	8 - 18
AC operated With auxiliary contact module Max. closing delay		ms	45
Rating data for approved types			
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600
AC		А	10
DC		V	250
		А	0.5

Design verification as per IEC/EN 61439

•			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	6
Heat dissipation per pole, current-dependent	P _{vid}	W	0.4
Equipment heat dissipation, current-dependent	P _{vid}	W	0
Static heat dissipation, non-current-dependent	P _{vs}	W	1.8
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	50
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.

10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
, , , , , , , , , , , , , , , , , , ,	
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Tec

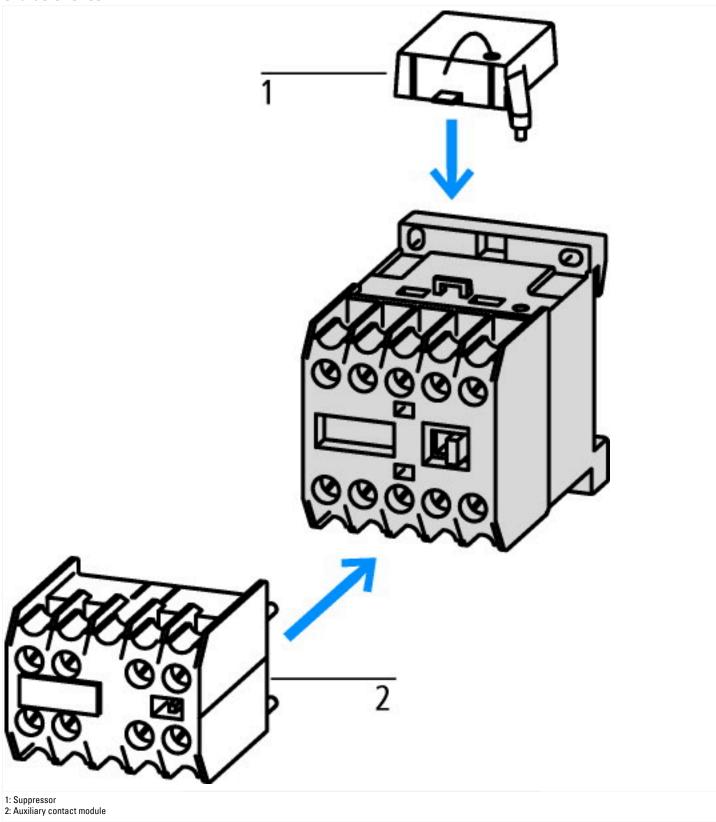
Technical data FTIM 7.0					
Technical data ETIM 7.0					
Low-voltage industrial components (EG000017) / Contactor relay (EC000196)	Low-voltage industrial components (EG000017) / Contactor relay (EC000196)				
Electric engineering, automation, process control engineering / Low-voltage switc	h technology / (Contacto	or (LV) / Contactor relay (ecl@ss10.0.1-27-37-10-01 [AAB716014])		
Rated control supply voltage Us at AC 50HZ		V	48 - 48		
Rated control supply voltage Us at AC 60HZ		V	0 - 0		
Rated control supply voltage Us at DC		V	0 - 0		
Voltage type for actuating			AC		
Rated operation current le, 400 V		А	3		
Connection type auxiliary circuit			Screw connection		
Mounting method			DIN-rail/screw		
Interface			No		
Number of auxiliary contacts as normally closed contact			1		
Number of auxiliary contacts as normally open contact			3		
Number of auxiliary contacts as normally closed contact, delayed switching			0		
Number of auxiliary contacts as normally open contact, leading			0		
With LED indication			No		
Number of auxiliary contacts as change-over contact			0		

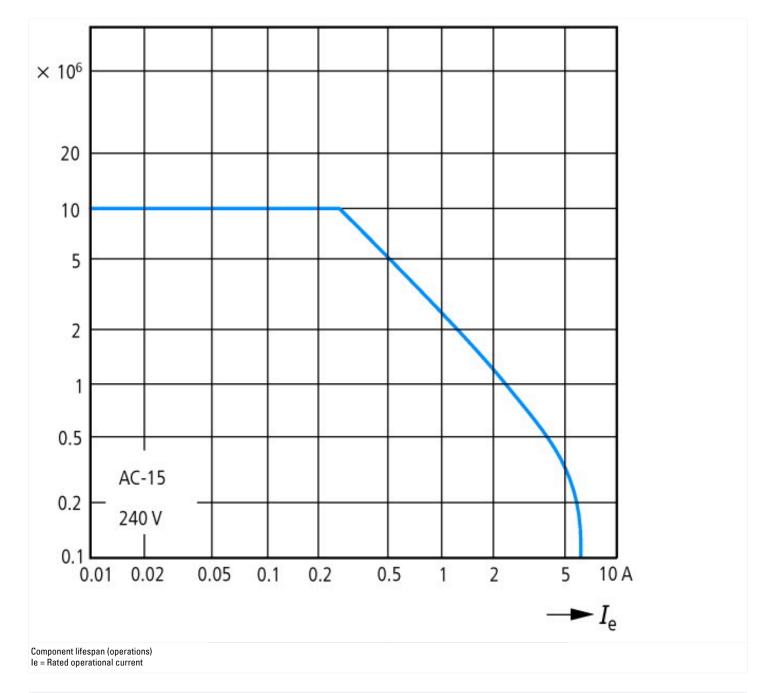
Approvals

Manual operation possible

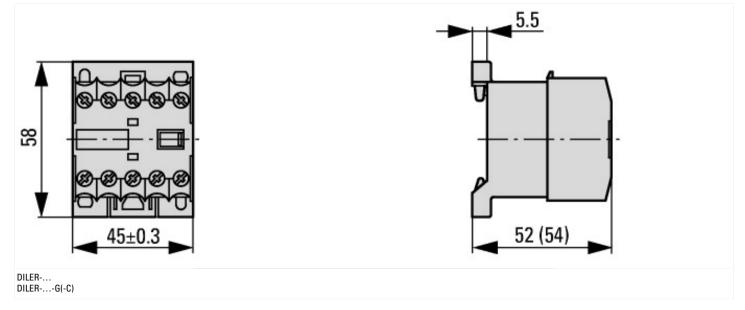
IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking
E29184
NKCR
012528
3211-03
UL listed, CSA certified
No

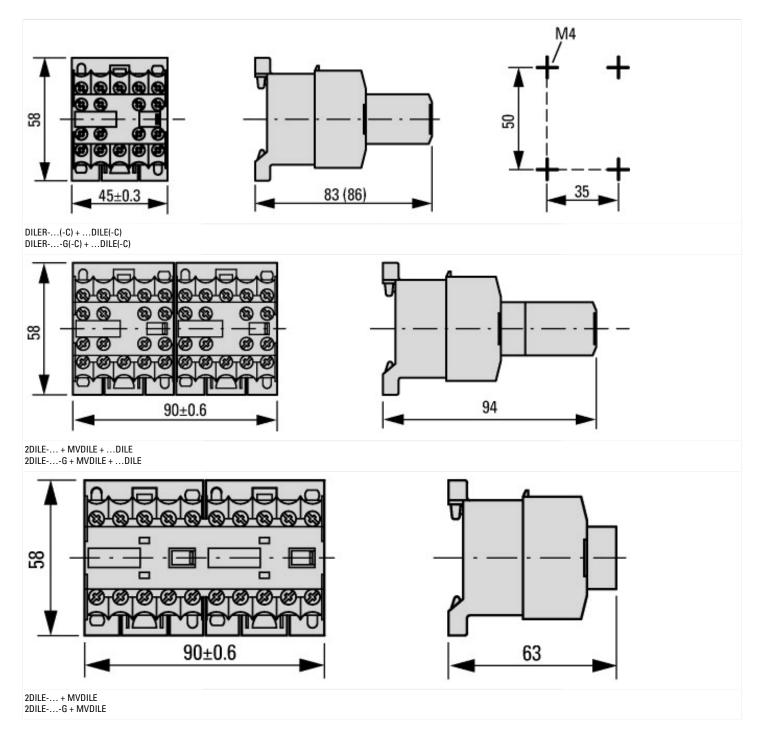
No





Dimensions





Assets (links)

Declaration of CE Conformity 00003110 Instruction Leaflets IL03407009Z2018_04

Additional product information (links)

IL03407009Z (AWA2100-0882) Mini contactor relay

IL03407009Z (AWA2100-0882) Mini contactor ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03407009Z2020_05.pdf relay